



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

MF

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/094,030 06/09/98 DUPLY

P Q50496

EXAMINER

WM02/1122

SUGHRUE MION ZINN MACPEAK & SEAS
2100 PENNSYLVANIA AVENUE NW
WASHINGTON DC 20037-3202

L OGDON, T

ART UNIT

PAPER NUMBER

2662

DATE MAILED:

11/22/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

SM

Office Action Summary

Application No.

09/094,030

Applicant(s)

DUPUY, PIERRE

Examiner

Joe Logsdon

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☒ received.
2. ☐ received in Application No. (Series Code / Serial Number) ____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.

- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

Objections:

1. Claims 6 and 7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Assuming applicant intends claims 6 and 7 to be dependent—depending on claim 1—for claims 6 and 7 to further limit claim 1, they must specify steps involved in a method because claim 1 is a method claim.

Claim Rejections—35 U.S.C. 112, Second Paragraph:

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear from the wording of claims 6 and 7 whether applicant intends them to be claims for an apparatus or claims for a method.

Claim Rejections—35 U.S.C. 103(a):

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engel et al. With regard to claims 1, 6, and 7, Engel et al. discloses a system for performing a method of allocating data transmission channels to a group of mobile stations, where one embodiment involves half-duplex mode, in a mobile telecommunications network of the type using packet ("message bursts") mode and having multiple access by multiplexing (FDMA and TDMA) transmission channels, in which method the transmission channels (time slots) allocated to a mobile station, respectively in a "down" direction from the network to the mobile station, and in the "up" direction from the mobile station to the network, can change at each "allocation period" ("n time frames"); and a transmission authorization ("assignment information A, B, C") received over a transmission channel (specific frequency and time slot) in the down direction for a given allocation period indicates that consecutive transmission channels (time slots with a given

frequency) identifiable from the authorization channel (specific frequency and time slot) using a predefined relationship, are allocated in the up direction (column 3, line 36 to column 4, line 22; column 5, lines 40-47; column 6, lines 32-37). Engel et al. fails, however, to teach a system that performs a method in which a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that the transmission channel and consecutive transmission channels are allocated in the up direction for the following allocation period; instead, Engel et al. teaches that this allocation is for the same allocation period (column 4, lines 18-22). It would have been obvious to one of ordinary skill in the art to modify the invention of Engel et al. so that a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that the transmission channel and consecutive transmission channels are allocated in the up direction for the following allocation period because such a method would allow the fixed station (control terminal) to change transmission channel allocation depending on properties of the mobile stations (as well as priorities of their messages) that request transmission channels during the allocation period ("n time frames") (column 4, lines 37-46; column 5, lines 40-47; column 8, lines 45-56; column 9, lines 26-41); such a method would be simple to implement; the mobile station would be guaranteed to be able to transmit without interference during such allocated time slots; the required computations would be relatively simple; and other information could be transmitted to the mobile station through the authorization channel because relatively little information would be required to allocate the time slots.

With regard to claim 2, Engel et al. fails to teach a system that performs a method in which a window is used to determine the allocated transmission channels. It would have been

obvious to one of ordinary skill in the art to modify the invention of Engel et al. so that a window and the location of the authorization channel are used to determine the set of adjacent time slots that are to be allocated for transmission by the mobile station because such a method would be simple to implement; the mobile station would be guaranteed to be able to transmit without interference during such allocated time slots; the required computations would be relatively simple; and other information could be transmitted to the mobile station through the authorization channel because relatively little information would be required to allocate the time slots.

With regard to claim 3, Engel et al. fails to teach a system that performs a method in which the location of the authorization channel is varied to increase or decrease the number of consecutive channels, depending on whether the quantity of data increases or decreases, respectively. It would have been obvious to one of ordinary skill in the art to modify the invention of Engel et al. so that the location of the authorization channel is varied to increase or decrease the number of consecutive channels, depending on whether the quantity of data increases or decreases, respectively, because such a method would be simple to implement; the mobile station would be guaranteed to be able to transmit without interference during such allocated time slots; the required computations would be relatively simple; and other information could be transmitted to the mobile station through the authorization channel because relatively little information would be required to allocate the time slots.

With regard to claim 4, the system taught in Engel et al. inherently reduces the number of transmission channels allocated for reception when the number of channels allocated for

transmission is increased when two half-duplex mobile terminals successfully communicate, if such a reduction is necessary for half-duplex-mode operation.

With regard to claim 5, Engel et al. fails to teach a system that performs a method in which the size of the window is decreased for transmission by the mobile station of acknowledgments so that the number of channels allocated for the mobile station to listen to the network is increased. If the invention of Engel et al. were modified to teach a system that performs a method in which a window is used to determine the allocated transmission channels, as described above, and the size of the window were decreased for transmission by the mobile station of acknowledgments, the invention of Engel et al. would inherently increase the number of channels allocated for the mobile station to listen to the network. It would have been obvious to one of ordinary skill in the art to modify the invention of Engel et al. so that the size of the window is decreased for transmission, by the mobile station, of acknowledgments because the guard time required for acknowledgements can be made smaller than that required for other messages because a relatively small quantity of information is transmitted in an acknowledgement, and such an arrangement would make efficient use of the available time slots.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lampe, Talarino, Akerberg, Rydbeck, Malkamaki et al., and Tomabechi are cited to show the state of the art.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Logsdon whose telephone number is (703) 305-2419. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on (703) 305-4744.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 308-6743

For informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Joe Logsdon

Patent Examiner

November 16, 2000



HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600